

Notes on *Impatiens sikkimensis* (Balsaminaceae) and its recollection after a century

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इंपेशियंस सिक्किमेंसिस (बालसेमिनेसी) पर वर्गिकी टिप्पणी एवं इसका एक शताब्दी पश्चात पुनः संग्रहण

राजीब गोगोई, आनंद कुमार एवं वोजिश्च एडामोस्की

सारांश

इंपेशियंस सिक्किमेंसिस गोवार्ट एवं चक्रवर्ती को 115 वर्षों के बाद इसके प्ररूप प्राप्ति स्थान से पुनः संग्रहित किया गया है। इस जाति के प्रोटोलॉग में इसके सीमित वर्णन होने के कारण इसके नवीन संग्रहण के आधार पर जाति को पुनः वर्णित किया गया है। इसकी निकट संबद्ध जातियों से इसका तुलनात्मक अध्ययन और सही पहचान करने हेतु रंगीन चित्रण दिया गया है।

ABSTRACT

Impatiens sikkimensis Govaerts & Chakrab. is recollected after a gap of 115 years from its type locality. The species is redescribed from fresh collections as the descriptions in protologue was very limited. Colored illustrations along with comparison to closely related species are provided for easy identification.

Keywords: Eastern Himalaya, Balsaminaceae, New Records

INTRODUCTION

Impatiens sikkimensis Govaerts & Chakrab. is an endemic species found in Sikkim Himalaya (Grey-Wilson 1991, Chakrabarty 2009), the species was described by J. D. Hooker as *I. lutea* Hook.f., from a collection made by Pantling in 1901 (Hooker 1905). In 2011, Govaerts & Chakrabarty (2011) named this species as *I. sikkimensis* as the name coined by Hooker became a later homonym of *I. lutea* Lam. (Lamarck 1778). The species was almost

in oblivion about its status in wild and apart from the type collection (housed at K Herbarium) there was no recent collection. Under annual action plan project of Botanical Survey of India “*Impatiens* of Sikkim and Darjeeling Himalaya” RG & AK collected this species from South Sikkim after a gap of 115 years. Hence the species is described here from fresh material along with colored illustrations and a comparison to its closely related species (Table 1) is provided for easy identification in wild



Plate 1. *Impatiens sikkimensis* Govaerts & Chakrab.: **a.** plants in habitat, **b.** frontal view of flower, **c.** lateral view of flower, **d.** ventral view of flower, **e.** lateral view of flower, **f.** lateral sepals (ventral view), **g.** lateral sepals (dorsal view), **h.** lower sepal, **i.** dorsal petal (dorsal view), **j.** lateral united petals (dorsal view), **k.** lateral united petals (ventral view), **l.** pedicel with androecium and bract, **m.** capsule, **n.** seeds.

to enable concern authorities to take up conservation measures.

TAXONOMY

Impatiens sikkimensis Govaerts & Chakrab. in Rheedea 21(2): 173. 2011. *I. lutea* Hook. f. in Rec. Bot. Surv. India 4: 18. 1905; Grey-Wilson in Grierson & Long, Fl. Bhutan 2: 96. 1991; Vivek. & al. in Hajra & al, Fl. India 4: 176. 1997. (Plate 1)

Annual non-succulent herbs, sparsely branched, 30–60 cm tall, stem terete, mildly hairy at upper parts, nodes not swollen. Leaves distributed evenly along stem, alternate, petiole 0.5–1.2 cm long, green, blade elliptic to ovate, 3.0–9.5 × 1.0–3.5 cm, sparsely hairy on both sides, base cuneate to obtuse, apex acuminate, margin crenate, crenations setose between teeth, stipule absent, lateral veins 8–9 pairs, subopposite. Inflorescence axillary, peduncle present, to 1.8 cm long, usually 2 (1) flowered, bud greenish. Flower yellow, pedicel to 0.7–2 cm long, green, hairy, bract at the base, ovate, green, caducous, to 0.6 cm long, apex acuminate, midvein prominent, sparsely hairy. Lateral sepals 2, ovate, to 1.0 × 0.7 cm, apex cuspidate, sparsely hairy dorsally. Lower sepal navicular, gradually tapering into a coiled or annular spur, creamy or yellow, to 1–1.3 cm deep, mouth beaked, beak to 0.2 cm long, spur to 1.3–1.5 cm long. Dorsal petal yellow, ovate, to 1.3 × 1.3 cm, apex obtuse, non-beaked, dorsally not ridged. Lateral united petals yellow with greenish splotch at base, bilobed, subequal, to 2.2 cm long (whole), basal lobe unevenly ovate, not clawed, apex obtuse to emarginate, to 1.1 × 0.8 cm, distal lobe unevenly dolabriform, to 1.4 × 0.6 cm, apex notched, basal auricle absent. Stamens 5, encircling the ovary, to 0.2 cm. Capsule linear, green, slightly hairy, to 4.0 × 0.1 cm, seeds many, oblong, brown, 1 × 0.5 mm, surface papillate.

Flowering and fruiting: July to September.

Distribution: South Sikkim, endemic.

Ecology and Habitat: Margins of the subtropical forests dominated by *Cryptomeria japonica*, *Castanopsis* sp., *Lithocarpus* sp., *Quercus* sp., *Acer* sp., *Zanthoxylum* sp. At present the species is found with a localised distribution in Tendong RF with a good population but it needs to take up measures for in situ conservation as cleaning of the ground flora within its habitat may endangered the existing populations.

Specimens examined: South Sikkim, Tendong R.F, 30.08.2017, R. Gogoi & A. Kumar 73622 (CAL); Damsong, 5000ft., 23.07.1901, Pantling, K000694797 (K).

Table 1. Comparison of *I. sikkimensis* Govaerts & Chakrab. with its closely related species *I. pulchra* Hook.f. & Thomson

	<i>I. sikkimensis</i>	<i>I. pulchra</i>
Stem	whole plant hairy	only basal part minute hairy
Leaf	pilose	glabrous
Peduncle	hairy, to 1.8 cm long	glabrous, to 5.5 cm long
Flower bud	green	orange
Flower	yellow	orange
Bract	hairy, to 6 mm	glabrous, to 3 mm
Lower sepal	obliquely funnel form	non-oblique funnel form
Lateral united petals	outer margins of both the lobes unevenly lobed or notched	outer margins of both the lobes entire
Capsule	linear	fusiform
Seeds	oblong	sub-globose

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